LANDS AND FORESTS
TECHNICAL NOTE

REPORT ON THE 1988 PELLET GROUP INVENTORY

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The Pellet Group Inventory is designed to obtain a population estimate of white-tailed deer and moose. It was carried out in the spring of 1988. Of the 456 prescribed routes 422 were completed this year. Based on the data reported from this inventory a provincial overwintering deer population of between 117,483 and 149,682 was calculated. Because this figure is based on sampling we cannot determine an actual number.

Using the midpoint of the range for comparison among years suggests a 20% decrease in the 1988 midpoint from that of 1987, and a spring population at approximately the level of our 1984 herd.

This is not surprising. Throughout a long series of very mild winters our deer herd built up steadily to a peak in 1986. That year fairly severe winter conditions prevailed and our spring 1987 survey indicated a decline in population. Reproduction which is also affected by habitat quality and nutrition of the herd, was down in 1987. These two limiting factors resulted in a lower number of deer in the fall, reflected in the reduced harvest in 1987. In 1987-88 winter conditions for deer were again harder than they had been for several years. Only a major thaw in early 1988 and reduced snowfall thereafter saved the deer from potentially much higher mortality.

Since our inventory is designed to determine provincial populations, the county and regional figures given are not precise and offer a very wide range of possible herd numbers.

Table 1 gives population density information in terms of deer per square kilometre; Table 2 translates this to probable total number of deer.

Table 3 compares midpoints of the population ranges among regions for the years since the inventory was started in 1982.

Table 4 (which includes moose indices) shows moose density and population figures estimated from the inventory. Because of the sparse distribution of moose these estimates have even wider ranges of probability than do the deer estimates. From our inventory a provincial spring moose population of between 2,175 and 5,656 animals is calculated.

In both deer and moose the new-born 1988 animals must be added to arrive at a fall total population for the year.

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Table 1. *Overwintering deer densities by county calculated from the Pellet Group Inventories, Nova Scotia 1988.*

County	No. of Plots	Probable Deer Density Range/km²
Lunenburg	25	1.39 - 3.03
Queens	14	0.67 - 2.01
Shelburne	19	2.16 - 4.52
Yarmouth	20	1.29 - 2.27
Digby	21	1.38 - 3.26
Annapolis	23	1.88 - 3.46
Kings	18	1.32 - 2.58
West	140	1.98 - 2.58
Hants	20	1.43 - 2.91
Halifax	49	1.50 - 2.46
Cumberland	37	2.39 - 5.91
Colchester	31	2.09 - 4.49
Pictou	23	1.40 - 9.28
Antigonish	11	0.31 - 3.41
Guysborough	37	2.28 - 3.58
East	208	2.54 - 3.70
Cape Breton	21	1.62 - 6.66
Inverness	20	1.21 - 4.41
Victoria	15	1.99 - 7.01
Richmond	18	4.03 - 8.93
Cape Breton Island	74	3.30 - 5.54
Province	422	2.70 - 3.44
		Mean 3.07

Table 2. *Overwintering deer population ranges by county calculated from Pellet Group Inventories, Nova Scotia 1988.*

County	Probable Deer Population Range
Lunenburg	3409 - 7432
Queens	1222 - 3666
Shelburne	4874 - 10198
Yarmouth	2380 - 4188
Digby	3166 - 7480
Annapolis	4971 - 9149
Kings	2075 - 4057
West	29480 - 38414
Hants	3689 - 7507
Halifax	7281 - 11942
Cumberland	8840 - 21860
Colchester	6186 - 13290
Pictou	3276 - 21716
Antigonish	355 - 3904
Guysborough	8617 - 13530
East	54248 - 79023
Cape Breton	5082 - 20894
Inverness	3573 - 13679
Victoria	4299 - 15145
Richmond	4585 - 10159
Cape Breton Island	31473 - 52836
Province	117483 - 149682
	133583

Table 3. *Midpoints of range of estimated overwintering deer population by region, Nova Scotia 1982 - 1988.*

Year	West	East	Cape Breton	Province
1982	19752	54455	25992	102658
1983	33020	66028	26239	127185
1984	30076	71761	36623	132713
1985	40350	90555	42917	165782
1986	43178	99739	50547	184057
1987	36924	87565	51406	167087
1988	33947	66635	42154	133583

Table 4. *Estimated overwintering moose populations based on Pellet Group Inventory, Nova Scotia 1988.*

County	Estimated Moose per km²		Estimated Number of Moose	
	Min.	Max.	Min.	Max.
Lunenburg	0	0	0	0
Queens	0	.48	1	875
Shelburne	0	.31	1	699
Yarmouth	.01	.09	18	166
Digby	0	0	0	0
Annapolis	0	.05	1	132
Kings	0	0	0	0
West	.02	.08	298	1191
Hants	0	0	0	0
Halifax	0	.13	1	631
Cumberland	.04	.36	148	1332
Colchester	0	.62	1	1835
Pictou	0	.32	1	749
Antigonish	0	.04	1	46
Guysborough	0	.04	1	151
East	.05	.17	1068	3630
Cape Breton	0	0	0	0
Inverness	0	.50	1	1550
Victoria	0	.86	1	1858
Richmond	0	0	0	0
Cape Breton Island	0	.25	1	2385
Province	.05	.13	2175	5656